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**Red Clay Based Products Manufacturing Technology at
Ranasanka Tile Works: For Better Quality Products and
Increased Productivity**

By

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This research dissertation was submitted to the Department of Management of Technology of the University of Moratuwa in partial fulfillment of the requirements for the Degree of Master of Business Administration in Management of Technology

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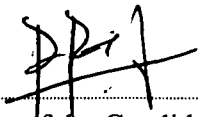
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"I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any University to the best of my knowledge and belief it does not contain any material previously published, written or orally communicated by another person except where due reference is made in the text."



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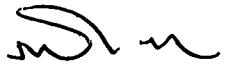
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ABSTRACT

Ranasanka Tile Works is a factory situated in Yogyana in the Wennappuwa Electoral Division, manufactures interlocking flat clay roofing tiles of Marseilles pattern which are known in Sri Lanka as the Calicut or Mangalore pattern or in laymen term "Rata Ulu" and clay ridge tiles (Mudun Ulu). It is a partnership company currently having an approximate turnover of rupees 9 million a year. The growth in the company by manufacturing present products are limited due to saturation of similar clay roofing tile manufacturing factories in the industry, shortage of workers, limited supply of fuel wood, and as per the recent decision taken by the Geological Survey and Mines Bureau (GS&MB) to curb excavation of clay from Maha-oya and Daduru-oya river basins due to over exploitation. This may effect the competitiveness and even future production of clay roofing tiles at Ranasanka Tile Works.

This study develops a business plan for the future of Ranasanka Tile Works. Firstly, the current internal and external business environments of Ranasanka Tile Works were analysed using S.W.O.T. analysis. Secondly, the possible different technological situations that Ranasanka Tile Works could adopt are discussed including the current technology that is available in the factory. The modernization of current technology focus on improving the low technology that uses at drying and firing processes in order to increase the effectiveness and efficiency on those processes.

Then the new technology that is available internationally was analysed. The main advantage of the new technology is flexibility, which enables to manufacture many related clay products, as the raw material preparation process for each kind of product is similar. This greater flexibility in the system makes products are more cost effective in the long run and also could fulfill market demands relatively in shorter periods.

Lastly, the business plan gives comprehensive description of actions that need to be undertaken to migrate from current level of activities to new level by establishing a new venture with a suitable organization structure encompassing internationally available new

technology, marketing, accounting, logistics divisions. The production output is enhanced by adding a variety of clay based products to the product line. This value addition increases the profitability of the proposed new organization for Ranasanka Tile Works, enabling it to penetrate into markets that are not presently served and draw higher price premiums.



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